UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,417	04/20/2004	Michael E. Bell	4480-65	2581

23117 7590 03/22/2006

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
JUSKA, CHERYL ANN	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/827,417	BELL, MICHAEL E.	
	Examiner	Art Unit	
	Cheryl Juska	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-25 and 28-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-25 and 28-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 November 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 15-25 and 28-32 in the paper filed January 4, 2006, is acknowledged.

Response to Amendment

2. Applicant's amendment filed January 4, 2006, has been entered. Claims 26 and 27 have been canceled. Thus, the pending claims are elected claims 15-25 and 28-32.

Drawings

3. The drawings were received on November 5, 2004. These drawings are objected to because the drawings are not label in the top margin as "Replacement Sheets."

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 15 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. US 6,786,988 issued to Bell. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims fully encompass pending claim 15.

6. Claim 15 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of copending Application No. 11/142,495 (US 2005/0209439) issued to Bell. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims fully encompass the present claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

7. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. The limitation of claim 16 is already recited in claim 15.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 15-19, 22, 23, and 28-30 are rejected under 35 USC 102(b) as being anticipated by WO 99/40250 issued to Chen et al.

Chen discloses a backing layer for a carpet that comprises a fused recycled thermoplastic material from waste carpet (abstract and page 3, lines 6-11). The backing layer may be up to 100% recycled material (page 1, lines 21-22) and is made preferably from post-consumer carpet waste (page 4, lines 5-10). The waste carpet is reduced to chunks or granules by a shredder and then processed in a granulator to denisify and further reduce the size (page 5, lines 19-21 and page 6, lines 3-15). The granules are then further reduced to form a powder by means of a cryogenic grinder (page 7, lines 1-8). The particle size of the powder is preferably 5-1,000 microns (page 18, claim 9). Preferably, as least 75% of the face fibers are removed from the waste carpet by a shearing process before shredding and then by removal with an aspirator before the grinding step (page 5, line 22-page 6, line 2 and page 6, lines 20-28). Chen teaches the use of inorganic fillers, such as calcium carbonate, as part of the waste carpet and as part of an additive to the backcoat (page 7, lines 16-19, page 8, lines 4-9, and page 15, lines 11 and 17). Chen also teaches a PVC products (page 4, lines 11-18).

The recycled powder typically comprises a thermoplastic material, such as the vinyl-based backcoat of the waste carpet, a plasticizer, an inorganic filler, a stabilizer (page 7, lines 16-

20). The powder may be used alone or mixed with virgin thermoplastic resin, such as polyvinyl chloride, in an amount ranging from 1-100% recycled material (page 7, lines 21-28 and page 10, lines 19-21). To the powder-resin mixture other ingredients, such as inorganic fillers, plasticizers, blowing agents, etc., may be added (page 8, lines 6-9). Therefore, claims 15-19, 22, 23, and 28-30 are rejected as being anticipated by the cited Chen reference.

10. Claim 24 is rejected under 35 USC 102(b) as being anticipated by JP 60-206868 issued to Moryama et al.

Moryama discloses a method of recycling waste carpet comprising the steps of collecting waste carpet materials, grinding said carpet to small chips, mixing said chips with additional synthetic resin, and extruding said mixture onto a new carpet as a backcoat material (abstract and English translation, page 2, lines 5-18 and page 5, lines 17-31). The waste carpet comprises thermoplastic face yarns as carpet pile, such as nylon yarns (translation, page 4, lines 4-6). The primary and secondary backings of said waste carpet are also made from thermoplastic resins, such as polyester and polyethylene (translation, page 4, lines 6-9).

The additional synthetic resin containing the carpet chips may be one or more of polyethylene, ethylene vinyl acetate (EVA), or ethylene-methacrylic acid copolymer (translation, page 4, lines 21-26). In one example, the chips are added to the additional synthetic resin in an amount of 35% (translation, 23-24). The chips and the additional synthetic resin are heated to a temperature sufficient to melt the resin of the waste carpet and the additional synthetic resin, but below the temperature of the nylon face fibers (translation, page 5, lines 4-14). Thus, the nylon face fibers act as a filler component in the backcoating. Therefore, claim 24 is rejected as being anticipated by the cited Moryama reference.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 21 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Chen reference.

Although Chen does not explicitly teach the specific compositions recited in claims 21 and 31, Chen does teach like compositions comprising filler, waste carpet comprising calcium carbonate, and resin. However, it is asserted that the claimed compositions are obvious over Chen, since the choice of waste carpet and the resulting carpet backcoat resins and the proper amounts are within the ordinary skill of one in the art. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Additionally, it has been held that discovering an optimum value of result effective variables, such as the composition amounts, requires only routine skill in the art. *In re Boesch*, 205 USPQ 215. Therefore, claims 21 and 31 are rejected as being obvious over the cited prior art.

13. Claims 15-23, 25, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Moryama reference in view of the cited Chen reference.

Regarding claims 15, 16, 28, and 30, Moryama does not teach the size of the first material (i.e., carpet waste). However, as noted above, Chen teaches a particle size of 5-1000 microns. It would have been obvious to one skilled in the art to grind the waste carpet particles

to the size taught by Chen in order to produce a uniform resin blend. Therefore, claims 15-17, 19, and 22 are rejected as being obvious over the cited prior art.

With respect to claim 23, Moryama does not explicitly teach the claimed PVC product. However, as noted above Chen teaches a similar process and product wherein said product is a PVC product. Thus, claim 23 would have been obvious since the choice of additional resin and/or waste carpet composition and, hence, the resultant product composition are within the ordinary skill of one in the art and since Chen teaches said PVC products are known. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Therefore, claim 23 is also rejected.

Additionally, Moryama does not explicitly teach the claimed fiberglass carpet substrate as recited in claim 25. However, said fiberglass substrates are well known in the art of carpets as suitable materials for reinforcement of said carpet. For example, Chen teaches the use of a fiberglass reinforcement layer (page 10, lines 8-13). Chen employs a fiberglass fleece backing layer in Example 1 (page 13, lines 19-25). Therefore, it would have been obvious to one skilled in the art to employ a fiberglass layer in the Moryama carpet as a reinforcement layer. Hence, claim 25 is also rejected.

Regarding claim 18, 28-30, and 32, Moryama does not teach the presence of calcium carbonate filler in the waste carpet. However, said filler is very well known in the carpet art. For example, Chen teaches the use of inorganic fillers, such as calcium carbonate, as part of the waste carpet and as part of an additive to the backcoat (page 7, lines 16-19, page 8, lines 4-9, and page 15, lines 11 and 17). Thus, it would be obvious to one skilled in the art to employ calcium

carbonate as a filler in the carpet of Moryama as is known in the art to reduce manufacture cost of backcoat materials. Therefore, claims 18, 28-30, and 32 are also rejected over the prior art.

With respect to claims 21 and 31, Moryama does not explicitly teach the claimed backcoat composition or waste carpeting composition. However, it is asserted that said claims are obvious over the cited prior art of Moryama and Chen. First, it is noted that the backcoat composition is partially dependent upon the composition of said waste carpet, such as the amount of nylon face fibers and the amount of resin and filler in the waste carpet. Thus, it would be obvious to one skilled in the art to balance the amount of additional resin and additional filler, if desired, to the waste carpet particles in order to obtain a suitable backcoat composition. The choice of carpet backcoat resins and the proper amounts are within the ordinary skill of one in the art. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Additionally, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, claims 21 and 31 are also rejected.

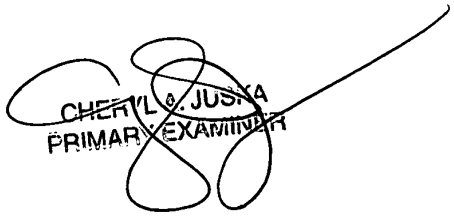
Regarding claim 20, Morayama does not explicitly teach the claimed viscosity of the waste carpet and resin mixture. However, it would have been obvious to one skilled in the art to adjust the composition and/or process temperature to obtain the desired viscosity. A higher viscosity would increase the amount of penetration of said backcoat into the tufted primary backing, while a lower viscosity would decrease said amount of penetration. It has been held that discovering an optimum value of result effective variables, such as the composition

amounts, requires only routine skill in the art. *In re Boesch*, 205 USPQ 215. Thus, claim 20 is rejected.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



cj
March 19, 2006